Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

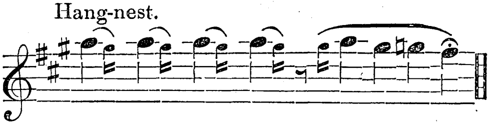
We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

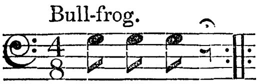
ZOOLOGY.

Note of Icterus Baltimore. — The following is the spring note of the



Sometimes the first part has five notes, instead of four; and the part after the rest is sometimes sung without the preceding part. — S. S. Haldeman.

Note of Rana pipiens. — The voice of the bullfrog is the vowel of *un*, pronounced like the French nasal *un*, and repeated in groups of three notes; the last one converted into a kind of dipthong, as if by the closing of the organs over the issuing sound. Not having heard the sound for many years, I write from recollection, for which allowance must be made. Popularly, this frog is supposed to say, *Blud-an-ounz!* — S. S. Haldeman.



Disappearance of the Colorado Potato Beetle at Niles, Michigan.—In the May number of the Naturalist for 1871, I gave a brief account of the Colorado Potato Beetle, as it was observed on the farm of James Hudson during the two previous years. As these beetles have apparently disappeared from that region I have taken pains to learn something of the time of their disappearance. It appears that during the spring of 1871 these beetles were even more plentiful than during the preceding year, and that they attacked the potatoes as soon as they came up and destroyed whole fields, and went on increasing with great rapidity. About the middle of July, however, they began to diminish in number, and by the middle of August, only a few were seen, and by the first of September they had almost entirely disappeared. But the manner or cause of their disappearance is not understood. The fields of late potatoes were mostly saved. Many fields were saved by putting on "Paris green" mixed with fifteen to twenty parts of flour. It was sprinkled over the plants while the dew was on.— Sanborn Tenney, *Williams College*.

Affinities of the King-crab. — A paper on the Anatomy of the American King-crab (*Limulus polyphemus* Latr.), by Professor Owen, recently occupied two meetings of the Linnæan Society of London. The learned author entered into an elaborate description of the external structure and muscular and nervous systems of the King-crab, and of its habits and modes of life as investigated by Rev. Dr. Lockwood, of New Jersey, and Mr. W. A. Lloyd, at the Aquarium at the Crystal Palace. After a résumé of the views of its structure and affinities entertained by Woodward, Spence, Bate, Packard, Dohrn, Salter, Huxley and other carcinologists, and a reference to the analogies of the Xiphosura with the extinct Trilobites and Eurypteridæ, Professor Owen summed up in favor of retaining the Limulus as a member, though a somewhat aberrant one of the class Crustacea. Prof. Van Beneden, the eminent Belgian embryologist, on the other hand, has published a paper in the "Comptes Rendus de la Société Entomologique de Belge," in which, from a study of the embryological development of Limulus, he arrives at the following conclusions: — 1. That the Limuli are not Crustaceans, as none of the characteristic phases of the development of Crustacea can be distinguished; and that, on the other hand, their development shows the closest resemblance to that of the Scorpions and other Arachnida. 2. That the affinity between the Limuli and Trilobites cannot be doubted; and that the analogy between them is the greater in proportion as we examine them at a less advanced period of their development. 3. That the Trilobites, as well as the Eurypteridæ and Pœcilopoda must be separated from the class Crustacea, and must form, with the Arachnida, a distinct division. — A. W. B.

Respiration of Fishes. — M. Gréhant, in his lectures on respiration, recently delivered at the École Pratique de la Faculté de Medicine of Paris, mentions some interesting facts in relation to the respiration of fishes. He refers to the researches of M.M. Humboldt and Provencal, who found that a tench placed in a small quantity of water (three or four quarts) used nearly the whole of the dissolved oxygen in the course of seventeen hours, whilst a quantity of carbonic acid amounting to about four-fifths of the oxygen removed was exhaled. They found that the whole surface of the body of the tench acted like the gills in removing the oxygen, as the same amount disappeared when the animal was only so far immersed that its head and gills were free. In one of M. Gréhant's experiments five gold fish removed the whole of the oxygen from a small quantity of water before they were asphyxiated, whilst carbonic acid was exhaled to double the amount of the oxygen absorbed. A small amount of nitrogen appears also to be exhaled. He points out the analogy that obtains between the respiration of fish and of the fœtus in the uterus. — A. W. B.

The Great Northern Shrike and the English Sparrows. — I have lately received with much interest from a pupil in Rutgers College Grammar School, a fine male specimen of the Northern Butcher-bird (*Collyrio borealis* Baird), which he had shot on the 6th inst. in a larch tree, in the city of New Brunswick. It had just made a repast on the brains of an English sparrow. Certainly it had method in its way of doing the thing. The victim was gibbeted by having its head squeezed into the crotch made by the bifurcation of two branches, each about half an inch thick. Thus suspended, the head was broken in at the top, and the brains taken out. This is not the only case that has come to my knowledge of the marauding on sparrows' brains in this place, by the northern shrike. I am of the belief that the birds of prey are waking up to the fact that the cities are affording a rich winter harvest, hence the resort thither of raptorial birds will greatly increase. It was recently said in a journal, that the owls were becoming numerous in Central Park, and were making forays on the English sparrows. Probably, if looked into, it will appear that the diurnal as well as the nocturnal birds of prey are equally on the increase in these places. Moreover, this fact I think is true of all the parks where these sparrows have become naturalized, and unless means are used to prevent, the increase of birds of prey in those parks will be very considerable, especially in the winter. The wonderfully prolific nature of these little birds will furnish rich and abundant provision, even for the Shrike, although with a singular daintiness, it selects the brains.

As to the acclimatization of the English sparrow — the bird is not quite proof against the severity of our winters. About a week ago, a flock of these birds left Jersey City for the mouth of the Bergen Tunnel, a distance of but little more than two miles, where some wheat had been spilled from a freight car. The snow had taken from them their pickings in the city. Not less than thirty were counted dead in one place on the snow near the tunnel. The little fellows were unable to get back to their boxes in the city and so perished from the cold.— SAMUEL LOCKWOOD.

PECULIAR COLORATION IN FISHES.— A short time since while examining a number of alcoholic specimens of Cyprinoids from Ogden, Utah, collected by Mr. J. A. Allen last September for the Museum of Comparative Zoölogy, I noticed a species of *Richardsonius* distinguished by a bright vermilion spot on the abdomen. The size of the spot varied in different individuals ; in some it was quite small, in others it extended from the base of the pectoral fin to the anal opening. Calling Mr. Allen's attention to this fact he informed me, greatly to my surprise, that this color was not present in the living fish when he caught them, but appeared after the fish had been in alcohol a short time. A dissection of one of these fishes showed me that the color was deposited in the areolar layer or derm, and was therefore a true pigmentary color. The only explanation I can offer to account for this peculiar appearance of color is this :—it is well known that during the breeding season fishes frequently take on the most brilliant colors, which disappear when that season is past. Is it not therefore probable that this color may have been one, at least, of the colors assumed by the fish during the reproductive period, and that the alcohol served in some way to bring out the color thus abnormally.

Whatever may have been the cause, the fact that color can so appear in fishes will serve as a caution to ichthyologists when describing species from alcoholic specimens alone, lest they confound abnormal or seasonal colors with those that are permanent.

If any of your readers have observed a similar peculiarity in any other species of fish, I should be glad to learn of it through the pages of your magazine.— RICHARD BLISS, JR.

DURATION OF LIFE OF THE DANUS ARCHIPPUS.— About the middle of last September I found my first larva (*i. e.* the first I ever happened to see though the fly is common even hereabout) and took it home to feed. I afterwards found more, having finally eight pupas, dating from 1st to 13th October, half of which I gave away ; of the balance two came out males, but imperfect, the third was a female and I kept it in an empty wardian case hoping the fourth might be a male. I cannot give the date of its appearance but it was about the 18th, and at the end of a week it was still alive and trying to suck a bit of apple paring. I then offered it some sugar and water on which it fed greedily, but the solution being too strong stuck to its feet and in struggling it lost two of them. On the 30th the last fly came out a female, and then I determined to try how long I could keep her, making my sweetened water very weak. The first mentioned died on the 15th November, and the last on the 10th December being then forty days old, and I think might have lived longer but that in the mean time I had filled up my case with plants and as she persisted in keeping near the glass her wings were continually drenched by the moisture collected on it.—LOUIS MITCHELL, *Norwich.*

AMERICAN LEECHES.—Our fresh water leeches, neglected for so long, have at length received attention from Prof. Verrill, who contributes an illustrated article on them to the "American Journal of Science" for February. About twenty-five species are enumerated, most of them being new to science, one species (*Cystobranchus viridus* Verrill) lives in both fresh and salt water. Most of our common leeches belong to Clepsine, and are found under submerged sticks, etc. and occasionally on the under side of turtles, but they seldom, if ever suck blood. They feed upon insect larvæ, small worms, etc.

GEOLOGY.

A NEW CAVE IN BERKS COUNTY, PENNSYLVANIA, was discovered sometime last November and was explored to some extent in February 1872. The above cave is now explored to the length of about five hundred feet and in width nearly three hundred feet in several apartments composed of limestone and silicious rock. The stalactites and stalagmites are of a beautiful nature, some stalactites are nearly pure silica, some twelve to fourteen inches in length and one and one-half inches in thickness, and in one apartment all quartz crystals, some purple, are as near Amethyst as can be. I intend to explore the whole and expect to find a "*bone cave* below, as the present floor, I am sure, at one time dropped down and is now from twenty to twenty-five feet in depth. I expect to find an entrance to the lower bottom. The temperature of the cave is from sixty to sixty-five degrees F. in some apartments. I think the stalactites are purer and finer than in the Mammoth Cave of Kentucky. The above cave is now